Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Public Notice Inviting Comment	)	WT Docket No. 14-180
on Revisions to Part 22 Rules	)	

To: The Commission

COMMENTS OF POWERTRUNK, INC.

PowerTrunk, Inc. submits these Comments in response to the Public Notice considering possible changes to Part 22 Rules for the Paging and Radiotelephone Service (the "Notice").[1]

By means of changes to these Rules, the Wireless Telecommunications Bureau opines that flexibility could be enhanced and increased spectrum utilization obtained for Paging and Radiotelephone Service spectrum. The Bureau further observes that "Such an update could result in licensees deploying innovative technologies, deploying narrowband equipment, or using offset frequencies if they hold adjacent channel blocks." Notice at page 2. The Bureau goes on to specifically reference TETRA as an example of one of those technologies, but also observes that TETRA equipment operates with channel bandwidth and emission limitations that are not consistent with current Part 22 Rules. *Ibid.*

These Comments focus on certain adjustments to the Rules that would facilitate use of TETRA solutions for users desiring that technology.

Introduction

PowerTrunk is a U.S. corporation providing land mobile radio projects in the United States, including the first ever TETRA contract in the U.S. for New Jersey Transit ("NJT"), the

[1] "Wireless Telecommunications Bureau Reminds Paging and Radiotelephone Service Licensees of Certain Technical Rules and Seeks Comment on the Need for Technical Flexibility," DA 14-1508, October 17, 2014.

largest statewide transit agency. PowerTrunk is a subsidiary of Teltronic S.A.U., headquartered in Spain, a major global land mobile radio vendor. PowerTrunk's TETRA-Interoperable D-LMR technology (TI D-LMR) was certified in 2010 for the twin purpose of complying with Part 90 of the Commission's Rules and, at the same time, retaining full compliance with the TETRA + Critical Communications Association's ("TCCA") TETRA Interoperability Profile ("TIP") established procedures making it a TIP-compliant and Part-90-compliant technology.

Discussion

I. Preliminary

In deciding two years ago to modify Part 90 Rules so as to allow use of TETRA equipment in the 450-470 MHz band, the Commission observed that the effect is to "give private land mobile radio (PLMR) licensees additional equipment alternatives without increasing the potential for interference or other adverse effects on other licensees." *Report and Order*, FCC 12-114, 27 FCC Rcd 11569 (2012) at para. 1 (hereinafter "*Part 90 Order*").

Compliance with Part 22 presents several of the same technical issues and a few policy issues that need to be addressed for TETRA. Technical issues include channel bandwidth and emission requirements, as well as interference avoidance. In addition, certain policy issues should be addressed by way of a notice of proposed rulemaking, particularly for so-called 'reduced power TETRA' like PowerTrunk's TI D-LMR, which already satisfies Part 22 channel bandwidth and emission requirements.

II. Technical Issues

a. Channel bandwidth/emissions

As the Notice observes,[2] the Commission recently has authorized Part 90 use of 22 kHz authorized bandwidth TETRA equipment for some of the channels in the 450-470 MHz band. *See Part 90 Order, supra; see also* Rule 90.209 note 6. In the same proceeding, the Commission also adopted adjacent channel power standards for the same band and the same equipment in lieu of emission masks. *Ibid; see also* Rules 90.210 note 5 and 90.221.

For the same reasons identified in the Part 90 Order, the Commission should align Part 22's Rules for authorized bandwidth and emissions, with those now in place for Part 90.

b. Protection of existing operations

Implementation of TETRA in the UHF band requires special handling due to the fact that it is a trunked technology not capable of monitoring a frequency for co-channel transmissions. However, frequency coordination can be used to implement sufficient geographic separation using contour analysis of the type reflected in Rule 90.187. Adjustments to Rule 22.567 to accommodate this approach should be defined in the course of this or a follow-on proceeding.[3]

---

[2] *Id.* at 2.

[3] Since this spectrum has been auctioned, any new licensee, using TETRA or another technology, would also be required to secure the consent of the primary geographic area licensee as a matter of course.

III. Policy Issues

a. Prohibition on mobile-to-mobile communications

The restrictions on permissible communications paths (§ 22.515) should be modified. Currently, mobile stations are only permitted to communicate with and through base stations while base stations are only permitted to communicate with mobile stations.

The Rule is a hold-over from site-by-site licensing, and is inconsistent with the operational flexibility CMRS providers are afforded in their operating bands. For example, in connection with the most recent auction of UHF and other paging licenses the Commission stated:

> "During the past 15 years, the Commission has expanded the permissible operations for Part 22 paging licenses. In 1996, CMRS licensees, including paging licensees, were given maximum flexibility to offer all types of fixed, mobile, and hybrid services. In 2005, the Commission further revised the Part 22 rules by eliminating (1) the requirement that paging stations be "domestic common carriers," (2) the restriction limiting eligibility to "communications common carriers," and (3) various other technical and licensing restrictions. See the Part 22 Report and Order (FCC 04-287) (pdf) at paras. 101 and 141-161. These changes expanded the potential uses for paging licenses and increased the flexibility of Part 22 licensees to respond to the marketplace and meet the needs of consumers."[4]

Consequently, the restriction on mobile-to-mobile communications should be eliminated.

b. Data traffic should also be permitted

TETRA is particularly well-suited for transmission of data traffic. However, Rule 22.99 defines "Radiotelephone service" as "[t]ransmission of sound from one place to another by means of radio."

Even at the time of its adoption, this definition may have been incomplete, if not erroneous, inasmuch as improved mobile telephone systems routinely transmitted automatic number identification messages, a form of "data." But regardless, the objectives of increased

---

[4] http://wireless.fcc.gov/auctions/default.htm?job=auction_factsheet&id=95#Licensing Rules

flexibility and more intensive use of the band sought by the Public Notice, would be well-served by adjusting the Subpart E so as to expressly allow data transmission. This would also more closely align Part 22 with the policy of flexible use as among fixed and mobile allocations for CMRS licensees, as discussed above.

It is PowerTrunk's understanding that many Part 22 licensees already utilize their channels for the provision of data services, at least in part. This is consistent with the fact that Part 22 does not appear to expressly prohibit data traffic for paging or radiotelephone systems. For all these reasons, data traffic should be allowed.

c. Permissive Change to Equipment Authorization

Given the further alignment of the Part 22 and Part 90 rules as discussed above, PowerTrunk urges that the Commission dispense with a requirement for securing a separate equipment authorization once equipment has been authorized for the same bands under Part 90. Accordingly, the FCC's permissive change policies should be extended to include the addition of Part 22 certification to equipment already certified for VHF and UHF Part 90 spectrum, such as PowerTrunk's TI D-LMR equipment.[5]

Conclusion

"TETRA combines the advantages of two-way radio, mobile telephony, messaging and data in a way that is clear, fast and less expensive than other technologies."[6] The Commission should take

---

[5] The Commission has previously indicated flexibility in respect of the equipment authorization process for TETRA technology. *See Notice of Proposed Rulemaking and Order*, FCC 11-63, 26 FCC Rcd 6503 (2011) at para. 23, *clarified* 26 FCC Rcd 13360 (2011) (waiving equipment authorization rules to allow equipment certified at the time of release of the waiver order at reduced power, and upgradeable to full power with a software change, to be modified as a Class II permissive change).

[6] TETRA Association Request for Waiver of Sections 90.209, 90.210 and 2.1043, pages 2-3 (filed November 20, 2009), as quoted in *Notice of Proposed Rule Making and Order*, FCC 11-63, 26 FCC Rcd 6503 (2011) at note 7.

action at this time to facilitate the introduction of this important technology for the benefit of those entities using Paging and Radiotelephone Service spectrum. Accordingly, for the foregoing reasons, the Commission should revise its Part 22 Rules consistent with these Comments so as to accommodate TETRA, and thereby facilitate more intensive use of the band.

Respectfully submitted,

POWERTRUNK, INC.

By: William K. Keane
Patrick D. McPherson

Duane Morris LLP
505 9th Street NW
Suite 1000
Washington, D.C. 20004

Its Counsel

December 17, 2014